APPENDIX C
DIGITIZATION SUPPLEMENT

This appendix does not change existing doctrine, tactics, techniques, or procedures for employing pathfinder teams and elements. It just introduces a vision of how digitization will affect pathfinder teams.

C-1. DEFINITION
"Digitization" refers to the ongoing effort to integrate the Army's diversified battlefield operating systems into a network where leaders and soldiers can share and interchange current information about the battlefield environment for immediate or later use. FM 101-5-1 defines digitization as "*The near real-time transfer of battlefield information between diverse fighting elements to permit a shared awareness of the tactical situation.*" Accelerated operational tempo, instant communications, and immediate response times will characterize the digital environment.

a. Digitization is based on advancements in computers, communications, satellite navigation, and OTN vision and sighting capabilities. Satellite navigation, digital communications, and digital mapping will allow leaders and soldiers to share a common, digital picture of the battlespace environment in real time.

b. New computer capabilities will allow leaders to decisively concentrate their battlefield combat power. High-speed digital data exchange, the simultaneous display of intelligence data to leaders at all levels, and the rapid exchange of targeting data from sensors to shooters power this increased effectiveness.

c. New OTN capabilities enhance the ability to detect, identify, and engage targets during limited visibility. They also increase accuracy and control of fires, which reduces the risk of fratricide.

C-2. PURPOSE, ADVANTAGES, AND CAPABILITIES
The main purpose of digitization is to provide access to common, current data about friendly and enemy forces. Leaders and soldiers collect these data through networks of sensors, CPs, processors, and weapons platforms. Every leader and soldier will have immediate access to relevant information. All soldiers will know what is happening around and among them. Other purposes of digitization include the following:

a. **Information**. To provide an integrated digital information network that will improve information flow, increase command and control, support battlefield fire and maneuver, and give leaders (decision makers), soldiers (shooters), and supporters customized information they need in order--

(1) To make the decisions necessary to prevail in any campaign.

(2) To share vital battlefield information (friendly and enemy) rapidly, if not instantly, rather than by slow voice radio or even slower liaison efforts.

(3) To act on information faster than the enemy does.

(4) To win the information war against any adversary.

(5) To use common data collected through the digitized network

b. **Situational Awareness**. To achieve near real-time situational awareness at all times and at all levels. This will allow leaders and soldiers to collect, share, and use relevant information at once.

c. **Operational Awareness**. Greater situational awareness leads to increased *operational awareness*.

d. **Operational Tempo**. A greater grasp of the big picture (operational awareness) enables leaders and soldiers to set and maintain an increased *operational tempo,* which will help in overwhelming the enemy.

e. **Lethality, Accuracy, and Survivability**. To enhance the effectiveness and combat power of a force comprised of fewer and smaller units, so it can execute its missions with greater lethality, accuracy, and survivability in an environment characterized by an accelerated operational tempo, instant communications, and immediate response times.

f. **Planning and Preparation**. To streamline and support mission planning, preparation, and execution. To do so by providing critical information to every leader at the same time. Having earlier access to needed information compresses the mission planning and preparation cycles.

g. **Effectiveness**. To increase the pathfinder team's effectiveness in conducting pathfinder operations for its parent unit.

h. **Firepower**. To synchronize direct and indirect fires more effectively. To mass the effects of dispersed firepower. This replaces the existing way of fighting that relies on physically massing weapons and forces.

i. **Decentralization**. To support more decentralized operations, thereby improving the effectiveness of team- and element-level operations.

j. **Battlespace**. To maintain a clear, accurate, simultaneous, and appropriate vision of the battlespace at each echelon--from soldier to commander, and to enhance the mission capabilities needed in a multidimensional battlespace.

k. **Fratricide**. To minimize fratricide.

l. **Signature**. To reduce the team's signature on the battlefield.

m. **Navigation**. To improve navigation.

n. **Linkup**. To improve linkup.